

AMENDMENTS

IN THE SPECIFICATION:

Please replace the paragraph which starts at page 5, line 14 and ends on page 6, line 18 with the following:

A1

The present invention is directed to an antenna comprising: a ground plane having a first planar surface and a first area; a radiating element having a second planar surface and a second area, wherein the second planar surface of the radiating element is substantially ~~coplanar in~~ parallel with the first planar surface of the ground plane; a first connecting line coupled to a first edge of the ground plane and to a second edge of the radiating element at a first contact location; and a second connecting line coupled to the second edge of the radiating element at second and third contact locations. The first area of the ground plane may be greater than the second area of the radiating element, or the first area of the ground plane area may be substantially the same as the second area of the radiating element. The first contact location may be between the second and third contact locations. The second connecting line may be coupled to the second edge of the radiating element at a plurality of contact locations. The first and second connecting lines may be adapted for a desired impedance. The desired impedance may be about 50 ohms. The desired impedance may be from about 50 ohms to about 75 ohms in some embodiments. The desired impedance may be from about 20 ohms to about 300 ohms in other embodiments. The radiating element and ground plane are made of an electrically conductive material. The electrically conductive material may be selected from the group consisting of copper, aluminum, stainless steel, bronze and alloys thereof, copper foil on a insulating substrate, aluminum foil on a insulating substrate, gold foil on a insulating substrate, silver plated copper, silver plated

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copper foil on a insulating substrate, silver foil on a insulating substrate and tin plated copper, graphite impregnated cloth, a graphite coated substrate, a copper plated substrate, a bronze plated substrate and an aluminum plated substrate, according to various specific embodiments. The ground plane may be on one side of an insulating substrate and the radiating element may be on the other side of the insulating substrate. The ground plane, the insulating substrate and the radiating element may be flexible. The first area of the ground plane and the second area of the radiating element may be rectangular or non-rectangular.

Please replace the paragraph which starts at page 6, line 19 and ends on page 7, line 3 with the following:

A2 sub C2
The present invention is also directed to a planar inverted F antenna comprising: a ground plane having a first planar surface and a first area; a radiating element having a second planar surface and a second area, wherein the second planar surface of the radiating element may be substantially coplanar in parallel with the first planar surface of the ground plane; a first connecting line coupled to an edge of the ground plane and to an edge of the radiating element; and a second connecting line coupled to the edge of the radiating element on either side of where the first connecting line is coupled thereto.

Please replace the paragraph which starts at page 7, line 4 and ends on page 7, line 12 with the following:

A3
The present invention is directed to a planar inverted F antenna comprising: a ground plane having a first planar surface, a first circumference and a first plurality of edges on the first

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circumference; a radiating element having a second planar surface, a second circumference and a second plurality of edges on the second circumference, the second planar surface of the radiating element being substantially ~~coplanar~~ in parallel with the first planar surface of the ground plane; a first connecting line coupled to a first edge of the first plurality of edges and a first edge of the second plurality of edges; and a second connecting line coupled to the first edge of the second plurality of edges on either side of the first connecting line.

Please replace the paragraph which starts at page 7, line 13 and ends on page 8, line 2 with the following:

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The present invention is also directed to a method for fabricating a wide bandwidth planar inverted F antenna, comprising the steps of: forming a ground plane on a first planar surface; forming a radiating element on a second planar surface, wherein the second planar surface is substantially ~~coplanar~~ in parallel with the first planar surface; coupling a first connecting line to a first edge of the ground plane and to a second edge of the radiating element at a first contact location; and coupling a second connecting line to the second edge of the radiating element at second and third contact locations. The first contact location may be between the second and third contact locations. The step of coupling may further comprise the step of coupling the second connecting line to the second edge of the radiating element at a plurality of contact locations.

Please replace the first full paragraph which starts at page 8, line 3 and ends on pag 8, line 11 with the following:

AS
The present invention is also directed to a radio system having a planar inverted F antenna (PIFA), the radio system comprises a ground plane having a first planar surface and a first area; a radiating element having a second planar surface and a second area, wherein the second planar surface of the radiating element is substantially ~~coplanar~~ in parallel with the first planar surface of the ground plane; a first connecting line coupled to a first edge of the ground plane and to a second edge of the radiating element at a first contact location; and a second connecting line coupled to the second edge of the radiating element at second and third contact locations, and first and second connecting lines are adapted to couple to a radio at a desired impedance.